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om Application # 08/110,912 FACSIMILE COVER SHE

DATE:

August 5.

TO:

Examiner J. Conrad

Art Unit 1204

COMPANY:

United States Patent & Trademark Office

FAX NUMBER:

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FROM:

FRANK UNGEMACH **PATENT ATTORNEY**

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COMMENTS:

SEARLE PATENTSTL (14)

PATENT

C = 2704/1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

M. L. Vazquez et al.

SERIAL NUMBER: 08/110,912

FILED: August 24, 1993

TITLE: CYCLIC SULFONE

CONTAINING RETROVIRAL PROTEASE INHIBITOR

Group Art Unit: 1204

EXAMINER: J. Conrad

DATE: August 5, 1994

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Informal Communication

The Commissioner of Patents and Trademarks Washington, D.C. 20231

Dear Sir:

This communication confirms the Election of Species for the above-identified patent application communicated to the Examiner by telephone on August 4, 1994. The elected species has the following chemical structure:

$$H_2N$$
 CH_3
 CH_3
 CH_3
 H_3
 CH_3
 C

otherwise known as [1S-[1R*(S*), 2S*]]-N4-[2-hydroxy-3-[(2-methylpropyl) (4-methoxyphenylsulfonyl) amino-1-(phenylmethyl) propyl]-2,2,3-trimethyl-butanediamide, which is disclosed in Applicants' specification in Table 9, entry #6, page 66 and is claimed in Claim 173, page 98, lines 6-8.

As requested, the following is the chemical structures corresponding to the claimed compounds in Claim 173:

$$H_2N$$
 CH_3
 CH_3
 CH_3
 N
 OH
 OH

Butanediamide, N^{4} -[2-hydroxy-3-[(3-methylbutyl)] (phenylsulfonyl)amino]-1-(phenylmethyl)propyl]-2,2,3-trimethyl-, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(3-methylbutyl)]] (phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo, phenylmethyl ester, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(3-methylbutyl)
(phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3trimethyl-4-oxo-, [1S-[1R*(S*),2S*]]-

Butanediamide, N^4 -[2-hydroxy-3-[(2-methylpropyl) (phenylsulfonyl)amino]-1-(phenylmethyl)propyl]-2,2,3-trimethyl-, [1S-[1R*(S*),2S*]]-

Ph
$$O \stackrel{CH_3}{\underset{C}{\longleftarrow}} \stackrel{CH_3}{\underset{N}{\longleftarrow}} \stackrel{O}{\underset{N}{\longleftarrow}} \stackrel{N}{\underset{N}{\longleftarrow}} \stackrel{O}{\underset{N}{\longleftarrow}} \stackrel{N$$

Butanoic acid, 4-[[2-hydroxy-3-[(2-methylpropyl) (phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo, phenylmethyl ester, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(2-methylpropyl) (phenylsulfonyl) amino]-1(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo-, [1S-[1R*(S*),2S*]]-

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Butanediamide, N^4 -[2-hydroxy-3-[(3-methylbutyl)(4-methoxy phenylsulfonyl)amine]-1-(phenylmethyl)propyl]-2,2,3-trimethyl-, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(3-methylbutyl)(4-methoxy phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo, phenylmethyl ester, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(3-methylbutyl)(4-methoxy phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo-, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(2-methylpropyl)(4-methoxyphenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo-, [1S-[1R*(S*),2S*]]

Butanoic acid, 4-[[2-hydroxy-3-[(2-methylpropy1)(4-methoxyphenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo, phenylmethyl ester, [1S-[lR*(S*),2S*]]-

$$H_2N$$
 CH_3
 CH_3
 CH_3
 N
 OH
 OCH_3

Butanediamide, N^4 -[2-hydroxy-3-[(2-methylpropyl)(4-methoxyphenylsulfonyl)amino-1-(phenylmethyl)propyl]-2,2,3-trimethyl-, [1S-[1R*(S*), 2S*]]

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H₂N CH₃ CH₃ O N O S O F

Butanediamide, N^4 -[2-hydroxy-3-[(3-methylbutyl)(4-fluorophenylsulfonyl)amine]-1-(phenylmethyl)propyl]-2,2,3-trimethyl-, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(3-methylbutyl)(4-fluoro phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo, phenylmethyl ester, [1S-[1R*(S*),2S*]]-

Butanoic acid, 4-[[2-hydroxy-3-[(3-methylbutyl)(4-fluoro phenylsulfonyl)amino]-1-(phenylmethyl)propyl]amino]-2,2,3-trimethyl-4-oxo-, [1S-[1R*(S*),2S*]]-.

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Please let me know if I may be of further assistance.

Respectfully submitted,

Frank S. Ungemach

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